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CHANGES THE WAR HAS MADE: AGRICULTURE'S ASSIGNMENT

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Not many years ago when we were in a severe depression there was considerable talk about "want in the midst of plenty." At that time, there was lack of purchasing power because of unemployment and inactivity in nonagricultural lines. The problem of agriculture was one of price-depressing surpluses. At present, in spite of record-breaking production in 1942, we find depleted stocks of many foods and we are about to be initiated into the complexities of "point rationing" in order to distribute limited supplies of canned goods, meats, butter and other products, more equitably among consumers.

What has changed the scene so completely? The large output tells us that it is not caused by a slowing up in production. The reason consequently must be found on the demand side. The three major factors are -

1. Increased consumer demand
2. Needs of the armed forces
3. Increased exports through lend-lease.

War has replaced a condition of considerable unemployment with one of manpower shortage. More people than ever before have jobs and the dollar income has risen correspondingly. The demand for food has increased very decidedly. The fact that various other civilian goods on which consumers normally spend money are short, has made available additional dollars for buying foods.

Men in the armed forces consume more food than they averaged as civilians. We want our soldiers, sailors and marines to be well fed. Problems of transportation, handling and storage necessitate giving the armed services first call on the supplies of certain canned and dried foods. Shortages of tin add to this problem and reduce supplies of canned goods for civilians still further.

Lend-lease has opened up new demands on our food supplies. It represents a program of sharing our food with our allies and one designed to provide food for the inhabitants of invaded countries as soon as the Axis' grip on them can be broken.

We also unfortunately must admit that part of our food supply goes to "feed the fishes" because of the havoc of submarine welfare.

But why do not our farmers take advantage of the market opportunity and expand their production to meet the present needs? Why do we not increase prices sufficiently to draw out the desired supplies? These are pertinent questions which deserve an answer and the answer is not hard to find.

Agricultural output is at or near the capacity of our present farms. We will need most favorable weather to maintain output at its present level. Manpower, equipment and time are not now available for adding greatly to farm capacity. Avail-

able manpower, materials and plants must be allocated among the essential lines of war production, foods and armed service. There is not enough to let each have all it wants.

Higher prices will draw out more production only as long as there is unused capacity or room for expansion. When capacity is approached the production response to higher prices necessarily is limited. Under such circumstances it becomes important to set up controls to protect the farmers and the rest of the citizens against the ravages of inflation. Price adjustments from now on should be mainly in price relationships to encourage shifts from the less essential to the more vital products rather than increases in the general price level.

Price under the abnormal conditions of war does not perform the function of rationing effectively where supplies become short so we have to set up rationing programs.

"Victory" gardens may aid materially in overcoming food shortages and thus in helping win the war. In many cases they will make available additional labor and land not normally used in producing food supply. They will release some time and energy of farmers for the production of more of such vital needs as livestock and livestock products, feed crops, and fats and oils. They will relieve an overburdened transportation system of part of its load and through home canning will help overcome shortages in processing and packaging facilities.

WHAT WILL THE HOME FOOD SUPPLY BE IN 1943?

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Food production in 1942 was the largest on record - 27% more than the average for the period 1935-39 and about 10% more than in 1941. This large production of foods was sufficient to satisfy military and lend-lease requirements and still provide civilian consumers in 1942 a supply that was larger than the average for 1935-39 on a per capita basis.

The food outlook for 1943 involves all the uncertainties of weather and other factors which influence the volume of production. If one assumes favorable weather will prevail during 1943 and that minimum needs for labor, machinery, fertilizer, and other necessary supplies are met, the total supply of foods in 1943 will probably be larger than in previous years. A large portion of this contemplated supply (probably 20 to 25%) will go to our armed forces and our allies (about 13% of our total production was required for these purposes in 1942). The per capita supply available to civilians will be smaller than in either 1942 or 1941, probably about the same as the average for 1935-39.

Judged in terms of past experience, we will be reasonably well fed in 1943. However, we will not have all we want. Consumers' incomes have increased and will increase further in 1943. As a population, we will want to purchase and consume more than will be available at the prices established. Therefore the available supplies of essential scarce items will be rationed in an effort to distribute them equitably.

The Meat Situation:

Meat production in 1942 set an all-time record of about 22 billion pounds. About 18¾ billion pounds were available to civilian consumers, the balance being delivered to the armed forces and to lend-lease. A production of 24 billion pounds is

expected in 1943 of which about one-fourth will be required for our military forces and lend-lease, leaving from 17 to 18 billion pounds available to civilians. This would be about 10% below civilian supplies in 1942 but about the same as the average of recent years.

Other Meats:

The per capita civilian consumption of chicken in 1942 is estimated at 22.6 pounds. Civilian supplies in 1943 may be slightly larger.

The per capita civilian supply of fish in 1942 is estimated at 10.6 pounds. It will be smaller in 1943 due to decreased production and increased military demands.

The Dairy Products Situation:

Total milk production in 1943 may be about the same as in 1942 if we have another excellent pasture season. Military requirements will be larger and civilian supplies smaller than in 1942.

The Fats and Oils Situation:

The per capita supply for civilians in 1943 is expected to be as large as in 1942 - about 33.5 pounds. Butter will be scarce.

The Wheat Situation:

Abundant supplies.

The Vegetable Situation:

Total production of fresh vegetables in 1942 was about 5% larger than in 1941. After satisfying military and lend-lease requirements, this left a slightly larger per capita civilian supply than in 1941. Production of fresh vegetables in 1943 is expected to decline somewhat.

The 1942 production of canned vegetables was about 14% larger than in 1941 but military and lend-lease requirements took about 25% of the output. This left civilians an average per capita supply of 33.8 pounds compared to 32.9 pounds in 1941. The U.S.D.A. forecasted pack of 12 vegetables in 1943 is placed at 158 million cases (24 No. 2 cans per case) of which the armed forces and lend-lease will require 80.6 million cases leaving 77.4 million cases available to civilians. This will be equal to about 63% of the 1942 civilian supply.

Civilian supplies of potatoes may be about the same in 1943 as in 1942 if goals are met.

Civilian supplies of sweet potatoes and dry edible beans in 1943 may exceed supplies in 1942 as there was a large carry-over from 1942.

The Fruit Situation:

Total fruit production in 1942-43 is slightly above the large crop of 1941-42. Production of fruit in 1943-44 may be below the 1942-43 crop and since military and lend-lease requirements in 1942-43 are substantially larger than for the preceding year, the total amount of fruit on a fresh equivalent basis available for civilian consumers will be considerably less. The decrease from 1942 to 1943 in the total amount of fruits marketed in the fresh state probably will be greater than the decrease in total production. Although the amount of fruit canned may be smaller than a year earlier because of tin plate restrictions, the amount dried is likely to be substantially increased so that the total used for canning and drying will be larger than in 1942-43.

The fruit and vegetable situation was recently summarized by Secretary Wickard with the comment that civilians would have about 33 pounds per capita of canned,

frozen, or dried fruits and vegetables in 1943 compared to an average of 46 pounds for the period 1937-41.

Shortages of transportation may reduce the supply of fruits and vegetables produced at great distance from consuming centers. We must expect to rely more on local supplies.

Shortages of tin and steel may reduce the amount of fruits and vegetables preserved by canning. We may need to consume more in the fresh state.

THE NUTRITION PROBLEM

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President of State Nutrition Committee

The nutritionist often finds it difficult to persuade families to buy fruits and vegetables or to get those who have land to spend time, money, and energy in producing these foods. The table which follows demonstrates what 26 families living in the North Central States received in terms of nutrients for their expenditures for different groups of food materials. Column 1 shows the percentage or the number of cents in each dollar, which were spent for each food group. The columns which follow show the percentage of each nutrient which was obtained from each class of food material listed. A food is a "good buy" whenever the percentage of a nutrient obtained is greater than the percentage of the money spent for that food. Below the table are given the allowances for several nutrients recommended by the National Research Council in 1941. When these are compared with the total amount of each nutrient listed in the box headings at the top of the page, it will be seen that the 26 families did not fare as well as the nutritionist would like them to do.

Deficiencies in calcium and vitamins are especially noticeable. In 1943 these families can buy only about half as much sugar as they did in 1935. If they were to substitute milk calories for sugar calories, it would mean adding one cup of milk daily. The calcium would be brought up to the desired level and appreciable progress toward the recommended goals would be made for vitamin A, vitamin B or thiamin and riboflavin. Enriched flour and bread were not on the market in 1935. Choosing these in preference to the unfortified products would take care of the thiamin problem. Riboflavin is an optional ingredient of enriched flour, but when it becomes more plentiful and cheaper, its addition to flour will go far in preventing deficiencies of riboflavin in these diets as well as in other American diets. In order to bring up the vitamin A value of these diets, under present food supply conditions, the families cannot expect to increase butter greatly, but more emphasis upon the green and yellow vegetables would help the situation materially. Since vitamin C, or ascorbic acid, is obtained almost entirely from fruits and vegetables, the kinds and amounts of these chosen will determine the degree to which the need for this dietary constituent is met.

Of special interest to this group are the returns, in terms of various nutrients, which the families secured from the money spent for vegetables and fruits.

About 12 cents out of each dollar or approximately one eighth of the food money went into the five groups of vegetables listed. In return, the families obtained about one tenth of their food energy measured in calories (column 2) and approximately one tenth of their protein (column 3). Potatoes and dried legumes were the "best buys" among the vegetables for both energy and protein. The remaining vegetables and fruits gave poorer returns for these nutrients.

Average distribution of expenditures among specified groups of foods, and proportion of nutritive content contributed by each food group*
(26 East North Central Families spending $1.88 - 2.49 weekly per capita for food, spring, 1935)

COLUMN NUMBERS	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	PROPORTION OF MONEY ALLOCATED	CALORIES	PROTEIN	CALCIUM	PHOSPHORUS	IRON	VITAMIN A INTERNATIONAL UNITS	THIAMIN (B_1)	ASCORBIC ACID (C)	RIBOFLAVIN (G)
QUANTITIES BOUGHT		2950	GRAMS 74	GRAMS 0.54	GRAMS 1.21	MILLIGRAMS 13	2600	MICROGRAMS 1230	MILLIGRAMS 56	MICROGRAMS 1770
FOOD GROUPS	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
EGGS	5.4	2.5	7.5	4.2	6.3	10.0	8.0	4.5	0	8.0
MILK, CHEESE, ICE CREAM	12.1	10.0	17.4	64.0	28.5	6.6	13.1	13.6	5.3	35.4
BUTTER, CREAM	4.9	6.0	.3	.9	.5	.4	9.3	.1	0	.2
TOTAL, DAIRY PRODUCTS AND EGGS	**22.4**	**18.5**	**25.2**	**69.1**	**35.3**	**17.0**	**30.4**	**18.2**	**5.3**	**43.6**
OTHER FATS, INCLUDING FAT MEAT	5.6	12.7	1.3	.4	.8	.9	(1)	2.6	0	.7
LEAN MEAT, POULTRY, FISH	24.2	11.6	31.8	2.2	21.8	28.5	7.5	31.4	.8	28.6
SUGARS	3.4	10.7	.1	.8	.2	1.0	(1)	(1)	.7	0
BREAD, OTHER BAKED GOODS	13.6	19.8	16.2	8.4	11.0	10.7	3.8	4.3	1.3	5.0
READY-TO-EAT CEREALS	.9	.8	.8	.3	1.6	1.3	(1)	1.1	0	.4
FLOUR, OTHER CEREALS	3.6	10.7	11.2	2.5	7.6	7.2	.3	2.3	.1	.1
TOTAL, GRAIN PRODUCTS	**18.1**	**31.3**	**28.2**	**11.2**	**20.2**	**19.2**	**4.1**	**7.7**	**1.4**	**5.5**
POTATOES, SWEET-POTATOES	2.2	6.1	4.6	3.7	8.3	12.5	11.2	15.4	23.7	7.7
MATURE BEANS, PEAS, NUTS	.9	1.6	3.0	1.9	3.7	5.2	0	6.6	0	.6
LEAFY, GREEN, AND YELLOW VEGETABLES	5.1	1.1	2.1	3.5	3.1	5.4	32.8	5.0	15.0	4.3
TOMATOES	1.7	.3	.4	.5	.6	.8	8.4	2.1	7.8	.6
OTHER VEGETABLES	1.8	.7	.8	1.6	1.3	1.2	.4	1.5	5.0	1.0
TOTAL, VEGETABLES	**11.7**	**9.8**	**10.9**	**11.2**	**17.0**	**25.1**	**52.8**	**30.6**	**51.5**	**14.2**
CITRUS FRUITS	2.2	.7	.3	1.9	.6	1.2	.3	3.4	19.1	2.1
OTHER FRUITS	6.0	3.6	1.0	2.6	2.4	6.1	4.6	5.5	21.0	4.4
TOTALS, FRUIT	**8.2**	**4.3**	**1.3**	**4.5**	**3.0**	**7.3**	**4.9**	**8.9**	**40.1**	**6.5**
MISCELLANEOUS	6.4	1.1	1.2	.6	1.7	1.0	.3	.6	.2	.9
TOTAL, ALL FOODS	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Recommended Allowances National Research Council, 1941		3000 cal.	70 g.	0.8 g.	1.32 g.	12 mg.	5000 I.U.	1800 micro.	75 mg.	2700 micro.

Adapted from U. S. Dept. Agriculture Circular 507, Diets of Families of Employed Wage Earners and Clerical Workers, P. 86.

Here in Minnesota over 250,000 civilians have taken advantage of this democratic opportunity to share in the defense of their nation, and the ultimate goal of winning this war. Over 54,000 of these have volunteered as airplane spotters, 7,000 as volunteer forest fire fighters, 86,000 as members of the Citizens Defense Corps, made up of such protective groups as air raid wardens, auxiliary firemen and policemen, but the vast majority of this number, namely 105,526 men and women, are serving in the various programs of the U. S. Citizens Service Corps which deal with community war service programs.

The Service Corps is an army of unpaid civilian workers, mobilized to do many jobs that must be done to keep the home front strong. Just as the Citizens Defense Corps comprises a volunteer force of air raid wardens, auxiliary firemen and policemen, etc., trained in protection against enemy air attack, so the Citizens Service Corps is made up of volunteer workers charged with the responsibility of leading the fight against inefficiency, insecurity, and poor health within communities, and in this way, of increasing the total striking power of the nation.

It is the policy of the Citizens Service Corps to encourage to the fullest extent work of established agencies, groups, individuals and organizations, and to see that they are represented on the various community war service planning committees such as Salvage, Nutrition, Consumer Interest, Health, Welfare, Recreation, etc. The State Planning Committees study the needs and problems which face the various communities in Minnesota as a result of the war, and make their recommendations to the State Director of the Citizens Service Corps. These suggestions are then offered to the local community service committees concerned with these various problems. We do not recommend the establishing of community service programs unless there is a definite need for them, either on the state or local level.

Now that we face an increased rationing of more foodstuffs because of the need to supply both our armed forces and our allies with food, and because we must conserve transportation formerly used in nation-wide distribution of foodstuffs, we must correlate the various agencies and authorities concerned with this problem in order to meet it. We realize that national health and morale begin in the home. A well stocked larder accomplished through our own efforts, gives a home a sense of security. The Gallup Poll shows that over one half of the United States families plan individual Victory Gardens this year. Undoubtedly these families will appreciate assistance and suggestions. The Office of Civilian Defense is able to recommend that each local Director of the Citizens Service Corps or Civilian Defense chairmen call together all groups, agencies and individuals who are trained, experienced and interested in the problems of Victory Gardens. This includes local Garden Clubs, Agricultural representatives, representatives of the Consumer Interest and Nutrition Committees, with perhaps an advisory member from the local rationing board. We might suggest that these individuals form a Victory Garden Committee, headed by the Chairman of Victory Aides, or someone else so long as the Victory Aide chairman is a member of the committee, as well as the County Agent.

This committee would study the characteristics and needs of its locality, and adapt any state or national gardening suggestions to their own problems. The Victory Aides and the Neighborhood Leaders could take these suggestions to every home, or at least give each family an idea where help in planning Victory Gardens can be obtained. Later in the season, the Victory Aides and Neighborhood Leaders might find out how many families have developed Victory Gardens and leave a VG sticker for the window.

The Scouts and other youth organizations might be encouraged to work as Junior Victory Aides, just as the 4-H Boys and Girls are the junior workers in the rural areas. All of these Victory Gardeners would be eligible for membership in the Citizens Service Corps, and in this way they would receive full recognition for their

continuous and tremendous contribution toward winning the war. In this way Victory Gardeners will not only receive the personal satisfaction of supplying their families with fresh vegetables, but they will have public recognition for the fact that they are gardening full time for liberty now, just as our menare fighting for it.

PRESENT STATUS OF HOME GARDENING

E. M. Hunt, Extension Horticulturist
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In attempting to promote a widespread garden movement, it will be well to consider carefully where we are starting from.

We may rest assured that in promoting gardening we are promoting a "paying business." Conservative estimates indicate that a well planned, well managed, full size garden may be worth $50.00 per family member per year. Labor put into such a garden may receive a return of from 60 to 90 cents per hour. To this incentive we may add: preservation of health and real assistance in the war effort this year.

In planning garden programs, we should recognize that there is a difference in the problems in the rural areas as compared to the strictly urban areas.

In order to ascertain the status of gardening in rural Minnesota, the Extension Service of the University of Minnesota has recently completed a survey which brings out some interesting facts.

98.5% of rural Minnesota families had some sort of a garden in 1942. Of these, 4.2% were new in 1942. A majority of these gardens are approximately 1/4 to 1/2 acre in size. There was some increase in both numbers and in the size of gardens in 1942 and a further increase is indicated for 1943.

These facts would seem to indicate that further emphasis on increased numbers and larger gardens is not particularly needed in the rural areas. The report does bring out, however, that better use of a wider variety of garden crops should receive serious attention.

Shortage of time and labor is acknowledged to be a serious problem. In this connection it is interesting to note that 55% of farm gardens are worked entirely by hand. Necessarily there must be considerable hand work in any garden, but it does seem probable that a considerable saving of labor could result from a more universal planning of "field type" gardens in rural areas.

Whether or not widespread gardening will really alleviate the possible critical food situation this year will depend largely on what is done with the resulting produce. According to the above-mentioned survey, 97.5% of rural families do some canning. The average amount canned per family last year was 271 quarts.

Although some vegetables were stored fresh by almost every family, the variety and amounts should be increased.

In addition to canning and fresh storage, there are several other preservation methods such as drying, freezing, sulfuring, etc. Although the use of these methods has increased sharply the last year, still only 15% of the families surveyed were using any of these methods (excluding sauerkraut making). There might well be more widespread use of these methods this year.

No detailed information such as previously mentioned is available regarding the status of city gardening.

This much, however, I believe we may assume:

1. We do want to increase greatly the number of urban gardens.

2. We recognize the limitation of space, therefore the possible total return, or labor return quoted above for rural gardens does not hold.

3. Fertility of soil may be an important factor. Considerable thought should be given to the problem of teaching would-be gardeners the importance of fertility and the problems likely to be encountered in obtaining fertilizer.

4. Skill is an important factor in successful gardening. Organization must be perfected whereby a host of inexperienced gardeners can obtain the best information and assistance.

COOPERATION GETS RESULTS

A. D. Wilson, Extension Specialist in Land Use Planning
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One of the problems of any garden program is to find a place in it for all agencies and to make use of all information these agencies have.

The Cass county garden program was started in 1940 because Cass county had a very heavy welfare load compared to its taxable resources. Much of the cost of welfare was represented by expenditures for food products. Early in 1940 the Cass County Welfare board adopted the policy that all persons receiving any kind of welfare assistance should raise as much of their own subsistence as possible. Garden seed was furnished free to all direct relief clients who were unable to buy them.

Because many of the relief clients were not getting results, the local welfare office called in the county agent for assistance.

The results of the 1940 effort with welfare recipients were sufficiently encouraging to warrant an effort to reach all prospective gardeners in the county.

Cooperation between Welfare and Extension proved advantageous to both agencies. Deciding the garden program was big enough and important enough to enlist the cooperation of all agencies in the county, Welfare and Extension groups were instrumental in calling a meeting of the heads of the following agencies: County Commissioners, Farm Bureau, Welfare Board, County Extension, A.A.A., F.S.A., Production Credit, R.E.A., and county schools. As a result an "Agencies Group" was organized early in 1941 and has held monthly meetings since that time. This group decided unanimously to sponsor as a group a garden contest for 1941.

Instead of limiting the effort to low income families as in 1940, it was decided to make the garden contest county-wide with everyone who desired participating. Business men were solicited for money for prizes. Newspapers of the county gave wide publicity. All of the cooperating agencies used their field contacts to stir up interest and enthusiasm. Extension service supplied bulletins on growing, canning and storing garden products.

The county was divided into 17 districts and three small prizes offered in each district for the best job of producing, canning, preserving and storing vegetables. District winners were eligible to compete for three county-wide prizes. Judges went to farms and basements to check results.

When, as a result of U.S. entry into war, Uncle Sam called for victory gardens, Cass county was ready. The 1942 garden program was conducted similar to the plan of 1941. To the 1941 enthusiasm and experience were added the national need for food production and the patriotic desire of everyone to do his best.

The success of the 1942 effort is shown by these figures:

Eighty-one per cent of all farms in the county took an active part in the program.

About 7,000,000 pounds, equal to about 200 carloads, of vegetables and fruits were produced of which one third was preserved by home canning, saving at least one million tin cans.

A conservative estimate places the cash value of 1942 Cass county garden produce at $350,000.

Average results per farm of the 50 prize winners in the 17 districts were 450 quarts of home canned fruit and vegetables and 2,200 pounds of vegetables stored for family use.

First prize in the county-wide contest was won by an aged couple living on a 40-acre partially developed farm. From about one acre of land, besides summer use, they produced and canned 967 quarts of fruit and vegetables and produced and stored 3,000 pounds of vegetables and 3 bushels of dry beans.